

35 USC § 103 Claim Rejections

Claims 1-3 and 6-14 were rejected as unpatentable over Noguchi (U.S. Patent No. 6,107,679) in view of Higashi et al. (U.S. Patent No. 5,918,113) and further in view of Takami et al. (U.S. Patent No. 5,126,818). Claims 15 and 16 were rejected as unpatentable over the Noguchi patent in view of the Higashi patent in view of the Takami et al. patent and further in view of Higuchi et al. (U.S. Patent No. 4,835,598).

The Office action concedes that the Noguchi and Higashi et al. patents fail to disclose a first conductive pattern that extends “to the *edge*” of a step portion as recited in pending independent claims 1 and 8 and relies on the Takami et al. patent for this feature (*see* Office action, pg. 5).

The Takami et al. patent discloses an IC chip 55 mounted to a circuit pattern 54 in which the circuit pattern 54 is formed on a large ceramic substrate 51 cut along cutting lines CT as shown in FIG. 8. Because the outermost end portions 53a of the circuit patterns 54 are exposed at the edges of the cut ceramic substrate, the risk of corrosion as well as damage to the chip 55 due to static electricity is increased (col. 5, line 58 – col. 6, line 8). To reduce this risk, the Takami et al. patent discloses partially removing the ceramic substrate 51 at its side portions as shown in FIG. 9.

In setting forth the claim rejections, the Office action alleges that it would have been obvious to one of ordinary skill in the art to include the *circuit pattern 54* of the Takami et al. patent, which is shown extending to the edge of a step portion in ceramic substrate 51, to the combination of the Noguchi and Higashi et al. patents in order to prevent the resulting circuit pattern “from being affected” by corrosion or static electricity (*see* Office action, pg. 5).

Applicants respectfully disagree and submit that it would not have made sense to apply the circuit pattern 54 of the Takami et al. patent to the conductive patterns of the Noguchi and Higashi et al. patents in order to prevent damage or corrosion. The conductive patterns 3 of the Noguchi patent and the electrode terminals 12a of the Higashi et al. patent are substantially distant from the edges of their respective substrates (*see* FIG. 7C of the Noguchi patent and FIG. 1 of the Higashi et al. patent). Accordingly, there already is a reduced risk of damage due to static electricity or corrosion in both devices. Therefore, it is unclear why one of ordinary skill

in the art would incorporate the circuit pattern 54 of the Takami et al. patent and subsequently extend the patterns 3 or terminals 12a to their respective edges "to prevent damage or corrosion" when little or no risk of damage or corrosion exists. In contrast, by extending the conductive patterns 3 or terminals 12a to the edge of the step portion, the risk of damage would, in fact, increase because the patterns 3 and terminals 12a would be closer to the exposed edge of the device.

The Higuchi et al. patent discloses a printed wiring board for carrying a semiconductor chip but fails to disclose the features missing from the Noguchi and Higashi et al. patents.

At least for the foregoing reasons, claims 1 and 8 should be allowed.

Claims 2-3, 6-7, 13 and 15 depend from claim 1 and should be allowed for at least the same reasons as claim 1.

Claims 9-12, 14 and 16 depend from claim 8 and should be allowed for at least the same reasons as claim 8.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

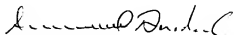
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The fee for the Petition for Extension of Time is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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